

**SAS Superstructure**

Location: 04-SF-80-13.2 / 13.9

Client Name: CalTrans

Run date 22-Nov-14

Time 6:56 AM

Daily Diary Report by Bid Item

Contract No.: 04-0120F4

Diary #: 1157 Const Calendar Day: 730 Date: 04-Jun-2014 Wednesday

Inspector Name: Brignano, Bob Title: Transportation Engineer

Inspection Type:

Shift Hours: Break: Over Time:

Federal ID:

Location:

Reviewer: Schmitt, Alex Approved Date: Status: Submit

**04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge****Weather**

Temperature 7 AM 12 PM 4PM

Precipitation Condition overcast early am, clear pm

Working Day ☒ If no, explain:**Diary:**

Dispute

General Comments

CCO 314, SAMPLING AND TESTING A354 GRADE BD MATERIAL:



ABF Engineer Kelvin Chen is working part time in the field and office on CCO 314.

There is work in the field on setup of TR's 14-17. Crews at the Pier 7 warehouse area are working an 8-hour shift 0600 through 1430. Ironworker Jared Garrett works all day on CCO 314. Laborer Carlos (Pedro) Garcia works all day on CCO 314. Two pallets are also loaded onto freight trucks at some point today, which involves an ironworker or an operator working briefly with a forklift – these operations are not inspected.

At the start of the day, between ~0600 and ~0630, the laborer replaces broken sandbags at the fence feet between the test rig area and the parking lot to the east. This section of fence has sandbags at the feet to secure the fence from getting knocked over into the cars in the adjacent parking lot. The sandbags deteriorate in the weather and the loose sand becomes a SWPPP issue. The sand debris is swept/shoveled by the laborer when he replaces broken sandbags. This work happens first thing in the morning before cars are in the parking lot next to the fence, which would complicate access to this work.

At the start of the day, the ironworker adds the tarp sides to the tent frames at TR's 14 & 15 (the top tarps were added yesterday). This is completed by ~0730.

After the fence sandbag work, the laborer cleans the pump and hose that will be used to add the NaCl Solution to the 300 gallon poly tanks. This is the same clean pump and hose that was used at TR's 12 & 13, but to make sure it is still clean after being at the jobsite unused for a few months, the exteriors of the hose and pump are cleaned with water. The insides will be cleaned later at the start of the pumping operation by wasting the first pumped material.

After the work on the pump and hose, the laborer works on the 12x12 timber stacks at TR's 16 & 17 for the future support of the traffic plates – the separate timbers are nailed together so they work together and are stable.

NaCl Solution is then added to the 300 gallon poly tanks at TR's 14 & 15. At ~0800, the ironworker uses a forklift to get 2 pallets with 55-gallon drums of previously mixed NaCl Solution from the warehouse. These 2 pallets have 5 full drums leftover from the work at TR's 12 & 13. First ~5 to ~10 gallons of NaCl Solution are pumped through the hose and pump into a waste drum to clean the insides of the hose and pump. Then 2 each 55-gallon drums of previously mixed NaCl Solution are pumped into the 300-gallon poly tank for TR 14. Then 3 each 55-gallon drums of previously mixed NaCl Solution are pumped into the



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300-gallon poly tank for TR 15. This work is complete ~0900. More NaCl Solution is planned to be added to these tanks in the future.

The ironworker next works on the plate wrench that will be used to tighten the nut on the test rod during the jacking steps. He modifies the handle, takes off extra material from the outside of the wrench so it will fit easier between the jacks and the nut, and cuts more facets in the wrench for more engagement options – go from a 6-corner typical nut arrangement to a 12-corner typical socket arrangement, but this wrench only has half this number of corners because it is only a half wrench for installing on the nut from above. The ironworker also test fits a chain wrench on the spherical washer at TR 14 to see if this will work for holding the spinning of the washer when the nut is tightened so that venting groove in the washer will remain at the top. While the chain wrench does fit between the jacks and the washer, the use of both the chain wrench on the washer and another wrench (plate wrench or chain wrench) will make for a lot of congestion in this tight area where access is through a hole in the traffic plate. We discuss not attempting to hold the spinning of the washer unless it becomes necessary in the future during the jacking steps.

The laborer works later in the morning to remove the tent feet anchors from the previous TR's 3 & 4 that will not work for the different tent frame and foot model that will be used at TR's 16 & 17. The originally placed tent feet were left in place at the end of the work on TR's 3 & 4, some of them have been damaged, and now they all need to be removed.

After the lunch break at 1130, the ironworker continues previous work assembling the TR's 16 & 17 tents. Most of this work is adding the feet to the posts – preassembled post/foot combos for use with the tent frames at a later date (not add posts yet so tent frames are not too high for adding the top tarps at a later date). This connection has a set screw type connection, but it is not a very strong or reliable connection considering the occasionally strong wind at this site, that anchoring the tent feet to the asphalt will be the main method of keeping the tents in place, and the risk of tents blowing downwind into the parking lot to the east of the test rig site. Similar to the other tent frame connections for these new tent frames for TR's 16 & 17, holes are drilled and 1/4" bolts and nuts are added to mechanically connect the parts.

Starting ~1200, the laborer works on the plumbing from the 300-gallon poly tanks. Previously, the main hose from the ball valve on each tank was added. Today a second ball valve is added onto the end of the hose and a short and smaller diameter hose is added after this second ball valve so that it will fit in the small diameter holes in the tops of the test rig wet chambers. The connections are made with hose clamps. This plumbing work is complete ~1230.

The next work for the laborer is securing the timber wire runs for the CT-METS AE wires. The different segments are nailed together so they don't shift and potentially damage a wire. Then the laborer does miscellaneous cleanup and sweeping around the test rig site.

Working from VGO on site today are Rob Rutledge and Mattea. They start work on site at 0800, take lunch between 1200 and 1300, and leave the field about 1500 - then continue work on data checks and programming at the hotel. They add the air thermocouple inside the TR 15 tent now the tent is in place with all the tarps. Most of the day is spent working on the spreadsheet for the plots and the calculated channels, including working out the bugs in the system. With the instrumentation on TR's 14 & 15 essentially complete, and as much work done on TR's 16 & 17 as can be done without the couplers on site that will allow the remaining setup, VGO plans to fly out tomorrow and come back next week. We discuss the schedule as follows: travel Tuesday 6/10/2014 and exercise the TR's 14 & 15 strain gauges on Wednesday 6/11/2014 for a possible first tensioning step on Friday 6/13/2014.

Related to Test IV, but from a previous phase with TR 12, one of the shank pieces has been lost in transit by the freight company, so an additional piece is need for some of the post fracture tests. In the morning, I sort through the extra shank pieces stored in the warehouse to find another piece from the same rod at E2. The lost piece is the second from the top and the replacement piece is the third from the top. I provide this piece to CT-METS later in the morning so that it can be sent to the lab for the post fracture testing.

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Separate from the TR's 14-17 setup work, the pallet with the 3 cut pieces of other 2013 rods for Test V is loaded onto a truck about 1000. This pallet is being sent to LRA for Test V.

Related to Test IV, but from a previous phase with TR 7, the pallet with the TR 7 rod, washer, and nut is loaded onto a truck about 1430. The material is being sent to a lab for the pull to failure operation.

A compressor – IR 185 ABF ID 002039 – is on idle/standby at the test rig work area. A 7kW generator – Whisperwatt 7000 – ABF ID 002343 is used for most of the day. A 40kW generator – MQ Power 40 – ABF ID 002051 is on idle/standby at the test rig work area. A Hydraulic Pump for running the jacks is on idle/standby at the test rig work area. An oxyacetylene torch is on idle/standby at the test rig work area. An extendable forklift (Gradall 544D – ABF ID 002005) and small forklift (CAT – ABF ID 002004) are used at different times on CCO 314 work. A Kubota Cart is used by the laborer.

Note that there is k-rail at this work area. Some of the k-rail is rented and addressed by the rental agreement. Some of the k-rail is ABF's k-rail used on site and paid as rented from ABF on a daily basis. To elevate the k-rail, crane mats and timber blocking (12x12's) are in use. The k-rail quantities are as follows:

10' bought k-rail = 20 pieces

20' rented k-rail = 10 pieces

20' ABF k-rail = 6 pieces

The tabulation of the 20' ABF k-rail is as follows:

Two (2) 20' ABF k-rail at the north end of TR 17.

Two (2) 20' ABF k-rail at the north end of TR 16.

One (1) 20' ABF k-rail at TR 15 (longitudinal running).

One (1) 20' ABF k-rail at TR 14 (longitudinal running).

The agreed extra work with ABF is as follows:

Laborer Carlos (Pedro) Garcia - 8 hrs

Ironworker Jared Garrett - 8 hrs

Extendable Forklift - 1 hr

Small Forklift - 4 hrs

Kubota Cart - 8 hrs

7kW Generator - 6 hrs

Skilsaw - 6 hrs

k-rail: 6 pcs @20'

Crane Mats (12x12 - 5'x16') - 2 pcs

Crane Mats (12x12 - 5'x7') - 8 pcs

See the attached Extra Work Order - Signed with ABF for CCO 314 work

CCO 96: WAREHOUSE FENCE:

The fence subcontractor (Infinity Engineering) starts work today at about 0800 in the warehouse on the fence for the CT storage area. This work is inspected by others.